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CORN SEED TREATMENT

A radio talk by Dr. J. R. Holbert, field agent in cereal investigations, Bureau of Plant Industry, Bloomington, Ill., on the Department of Agriculture noonhour program through Station KFKX, Chicago, and 17 other stations associated with the National Broadcasting Company, on Thursday, April 25, 1929, at 12:15 p. m. Central Standard Time.

Corn planting time is here again--and with it comes the inspiration to do a better job than we have ever done before. The purr of the tractor motor and the check of the corn planter may soon be heard all over the Corn Belt--from early morning until late at night. And many of the tractors will be running continuously!

Early planting of corn in a well-prepared seed bed has great advantages. Short-season varieties may be planted late and still mature. But they do not yield as well as the varieties that utilize the full growing season of any particular locality. Not many of us would claim to be able to do as much, working only 6 or 8 hours, as we could in 10 or 12 hours. Nor would we wait until 8 or 9 o'clock in the morning to start field work this time of year. SO, the higher yielding varieties ought to be planted early--at the beginning of the normal corn-planting season.

It is hoped, of course, that no one is considering planting anything but good seed. The corn grower who plants inferior and diseased seed can not expect to raise a profit-producing crop. He is licked before he starts. The best seed we can get is none too good to use in fields in which we shall invest time and money for the next 6 to 9 months.

But even good seed may be -- and usually is -- slightly infected with a number of seed-borne diseases. Under ideal weather and soil conditions following planting, slightly diseased seed may do almost as well as disease-free seed. However, ideal weather conditions seldom obtain. When early planting is followed by a period of unfavorable weather, seed-borne diseases--and soil-borne diseases, as well-cause a loss in stand and a reduction in the vigor of the young corn plants. A warm rainy period following planting frequently produces the same bad effects. This stunting of the young corn plants by disease may result in a marked decrease in the final yield of grain.

For a number of years the United States Department of Agriculture, in cooperation with the Illinois Agricultural Experiment Station, has been conducting experiments to determine whether or not dust disinfectants may be used to advantage on seed corn before planting. The results of these experiments have been summarized in U. S. Department Circular No. 34, a copy of which can be secured from the Department or Radio Station W R C, Washington.

We have found that the use of satisfactory dust treatments has resulted in increased yields ranging from 1 or 2 bushels to 5 or 6 bushels, depending on the amount of disease in the seed and the variety of corn--some varieties just naturally respond more to seed treatment than others do. Under very favorable

soil and weather conditions following planting seed treatment may not produce any increases in yield. But under less favorable conditions the use of seed treatment usually results in substantial increases in yield. In general, it may be said that the most consistent and the most profitable increases in yield from seed treatment have come from treating well-selected seed of the better varieties and planting on the more productive soils.

Last year, using seed collected from about 200 planter-boxes throughout Central Illinois--from the Eastern side to the Western side of the State--the increases in yield from three commercially-distributed seed treatments ranged from 2 to 3 bushels.

Seed treatment insures a better and more uniform stand of vigorous plants. It gives some protection against the soil infections that may cause injury in the young plant stage. The increases in yield are not always the same--they may be marked--4 to 6 bushels--or they may be slight. But considering the fact that they cost less than 5 cents per acre, the increases in yield are profitable.

I prefer to think of corn seed treatment in much the same way that I think of fire and automobile-liability insurance. Seed treatment offers economical protection against reductions in yield resulting from seed-borne and soil-borne diseases that cause reduced stands and lowered vigor of the young plants. It deserves the careful consideration of every corn grower.

Now just a few words of warning. These corn seed treatments are not claimed to control smut, ear rots, wire worms, grub worms, and other insects.

No corn seed treatment should be used until it is known to have merit, as determined by field experimentation. Laboratory and seed-tester trials do not furnish sufficient evidence to justify using any new and un-tried product.

Finally, follow directions that are on the labels and in the leaflets. Two ounces of dust to one bushel of dry shelled grain. Treat the seed thoroughly in a dusting machine, an old barrel or churn, or any home-made duster. Screen-off any excess dust that does not adhere to the surface of the kernels. And check-up on the corn planter plates. You may need to use a little larger plate for the treated seed corn. For further information write WRC or the U. S. Department of Agriculture. Ask for Circular No. 34.